

# Introduction

Metrology is the science of measurement and is the basis of weights and measures. The State Metrology Laboratory keeps and maintains the standards of weight, volume, and length that are used to ensure accuracy for all weights and measures in the state of California.

These physical standards form the legal and scientific basis for all commercial transactions in California involving weights and measure. The values of these standards are traceable to national and international standards. The photograph on the front of the Information Guide is of the international prototype kilogram that is kept near Paris, France. The value of all weights used in the United States and California can be traced back to this one object. Other standards can be traced to naturally occurring physical phenomena, for example: Atoms and protons emitted at various wave lengths, electrical forces relating to constants, and the frequency of a laser light.

The Metrology Branch is responsible for:

- Certification of state, county and service agency standards.
- Maintenance of recognized certification standards.
- Providing scheduling and pricing information.
- Coordinating measurement activities, for a fee, among local agencies, industry and the general public.
- Providing calibration services for the industrial community.